



Fact Sheet



UNITED STATES AIR FORCE

377TH AIR BASE WING (AFMC)

Office of Public Affairs, Kirtland Air Force Base, NM 87117

505-846-5991

STEM Expeditions

The Air Force Research Laboratory La Luz Academy offers Science, Technology, Engineering and Mathematics Expeditions for various groups at its classroom facility on Kirtland Air Force Base, New Mexico.

These short visits, typically one to two hours long, are scheduled during the summer months, evenings and some weekends, as time availability permits.



STEM Expeditions are ideal for groups such as New Mexico Mathematics Engineering Science Achievement Inc., scout troops, Junior ROTC groups and Civil Air Patrol cadets.



The types of hands-on activities that students have participated in during a STEM Expedition include:

- Trying to inflate a Bernoulli bag using nothing but lung power and knowledge of Bernoulli's Principle (faster moving air has less pressure);
- Learning about airplane control surfaces such as rudders, ailerons and yokes and applying them to a computer flight simulation;
- Using teamwork and leadership skills

to successfully navigate a set of multi-user Intergalactic Skis, or to deposit some spilled "radioactive" material (actually painted rocks) safely, using a multi-user rope tool from a dis-

tance, in Mission LunaGlow 63-8B;

- Exploring waves and the electromagnetic spectrum using spring coils and light boxes;
- Investigating how stars and planets interact, using a light source for the sun and foam balls to represent the planets;
- Observing the effects of solar wind with the help of a Van de Graaff generator and
- Exploring the states of matter by participating in an interactive cryogenics demonstration using liquid nitrogen to flash-freeze marshmallows, balloons and other items.



Contact AFRL La Luz Academy to find out how your group can participate in a STEM Expedition.

For more information, contact AFRL La Luz Academy at (505) 846-8042 or go to: <http://www.vs.afrl.af.mil/TechOutreach/TT/K-12.aspx>.

(Current as of October 2008)